

Technology Trends

Computing Technology Degrees and Careers


IT Jobs *and the current economy*

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WHAT ARE YOU GOING TO DO WHEN YOU GRADUATE?





What will you need to be happy & successful?

- Positive personal relationships
- Good Health
- Financial Security
- Meaningful employment





A GREAT CAREER HELPS MAKE THESE HAPPEN





What makes a job a *GREAT* job?



GREAT PAY





FUN





FLEXIBLE

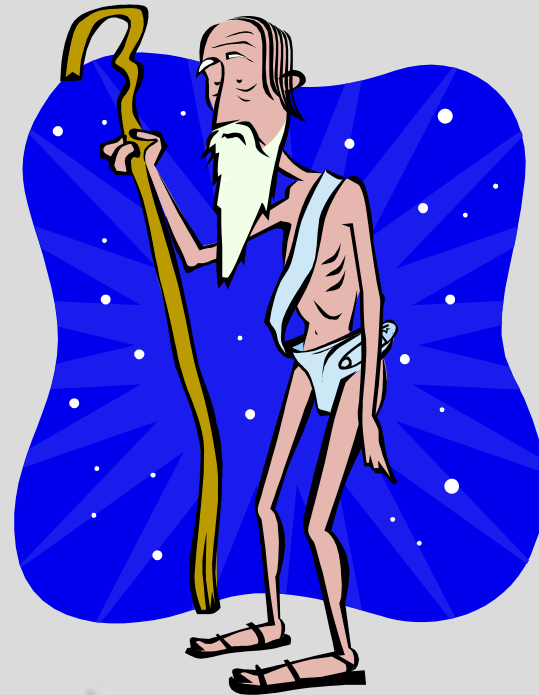




PERSONAL GROWTH



LONGEVITY





WHAT ARE THE BEST JOBS IN AMERICA?



Best Jobs in America

(per [Money Magazine](#) – Nov 2009)

- #1 Systems Engineer
- #5 IT Project Manager
- #8 Computer/Network Security Consultant
- #12 Software Developer
- #16 Software Product Manager
- #17 Business Analyst – IT
- #28 IT Technical Writer
- #30 Telecommunications Engineer
- #39 Software Program Manager
- #40 Applications Systems Analyst





WHAT KINDS OF JOBS ARE IN THE MOST DEMAND?



Top 10 Jobs for Growth



- #1 Telecommunications Engineer
- #2 Systems Engineer
- #6 Business Analyst – IT
- #7 Software Developer Director
- #10 Computer Network Security Consultant
- (per CNNMoney.com – October 12, 2009)





SOUNDS TOO GOOD TO BE TRUE...



Economic News Release

Table 2. The 10 industries with the largest wage and salary employment

Table 2. The 10 industries with the largest wage and salary employment growth, 2006-2016 (1)
(In thousands)

Industry	Employment		Change	
	2006	2016	Number	Percent
Management, scientific, and technical consulting services	921	1,639	718	77.9
Employment services	3,657	4,348	692	18.9
General medical and surgical hospitals, public and private	4,988	5,679	691	13.9
Elementary and secondary schools, public and private	8,346	8,983	638	7.6
Local government, excluding education and hospitals	5,594	6,206	612	10.9
Offices of physicians	2,154	2,687	534	24.8
Limited-service eating places	4,019	4,548	529	13.2
Colleges, universities, and professional schools, public and private	3,434	3,933	499	14.5
Computer systems design and related services .	1,278	1,768	489	38.3
Home health care services	867	1,348	481	55.4

1 Data are from the National Employment Matrix.

Source: <http://www.indeed.com> as of 4/9/2009

With 100 miles of Phoenix

214	Systems Engineer
11	IT Project Manager
162	Computer/Network Security
161	Software Developer
102	Network Administrator
7	IT Help Desk Job Listings


Over 657 of the best jobs in America
within a two-hour drive





16,363

**Job Openings at Microsoft
(as of 11-20-2009)**





Why So Many Openings?

- Not enough *qualified* people in the job market to meet our needs



What does Microsoft look for?

- Raw talent and smarts
- Technical skills & experience
- Self-confidence
- Honesty and Integrity
- Creativity, Passion, Drive
- Exceptional communication skills
- Fit for the company, position, team



What evidence do we look for?

- New college graduates
 - Leadership
 - Student government
 - Club leadership
 - Out of class experience
 - Tech is “hobby”
 - Contest participation
 - Volunteer work using tech skills
 - Internships
 - College major
 - Courses taken
 - School you attend
 - Grades





SO WHAT IS THE DOWN SIDE?



The Reality of IT Jobs



- Your knowledge becomes obsolete quickly
 - Throughout your career you will have to learn new technologies
- You have to have the discipline to teach yourself in your spare time
 - No time off for school (employers will often pay your tuition 😊)
- Not always a 9 to 5 kind of job
 - Project deadlines can mean late nights & weekends
- Individually accountable; can't hide behind others
 - You will often be the only person doing your job on a team





**BUT WHAT IF I DON'T WANT
TO BE A PROGRAMMER?**



Entry-level Information Technology Jobs

- IT Consultant
- Project Manager
- Interface Designer
- Solution Architect
- **Database Manager**
- Security Analyst
- Technical Support / Help Desk
- Technical Writer
- **Web Developer**
- Test Engineer
- Systems Analyst
- **Software Developer**
- Network Analyst/Architect
- Program Manager
- Technical Sales
- **Training Specialist**

SOME REALLY COOL TECH JOBS



Program Manager / Systems Analyst

- writes specifications
- author papers
- drive changes to processes
- work with customers
- guides the development of software features

Key Skills:

- Creative
- Empathetic
- Writing and Speaking
- Likes to Solve Puzzles

Priya – Program Manager



Software Tester

- Designs tests
- Trouble shoots problems
- Tries to break the software
- Works closely with programmers

Key Skills:

- Detail-oriented
- Creative
- Curiosity
- Able to learn new things quickly



Angela – software tester on Xbox console



Jake – Technical Leadership Macintosh Business Unit



Runs the business unit for Office for Mac

Key Skills:

- Ability to function within startup-like environment and willingness to strike out into unexplored territories
- Proactive and self-motivated style of leadership and ability to deal with ambiguity
- Excellent communication and negotiation skills
- Strategic thinking and business strategy skills
- Ability to collaborate with senior technical and project management personnel





**BUT MY PARENTS/ADVISORS
TELL ME THAT A
TECHNOLOGY CAREER IS
RISKY**



Technology Trends

Technology Facts and Figures 2007

Economic Impact

- 72% of all US labor productivity
- 500 billion annual revenues
- 1 out of 4 jobs by 2014

Technology Employment

- 5.8 million New jobs
- 1.5 million (*software engineers*)
Fastest growing occupation in United States

New Technology Jobs Created

- 147,000 up 2.9%

Strongest Subcategories

88,500 *Software (CS, CE, CSE)*
66,400 *Engineering (all time high)*

Resource:

AeA (American Electronics Association) ; *Cyberstates 2007: A Complete State-by-State Overview of the High-Technology Industry*

Technology Salaries

- \$75,500 annual average wage
- 86% more than the average U.S. private sector wage.

Fastest Growing Occupation 10 Year Forecast.

- 36% + Computer Engineers
- 36% + MIS/CIS/Info Science
- 35% + Technical Support Specialist
- 20% + Computer Programmer

Resources:

1.] Economist, Division of Labor Force Statistics, Bureau of Labor Statistics; *Change in employment by occupation, industry, and earnings quartile, 2000-05.*

2.] <http://www.outsourcing.com/>



WHAT DOES THE LOCAL IT JOB MARKET LOOK LIKE?



Source: <http://www.indeed.com> as of 4/9/2009

With 100 miles of Denver

146	Systems Engineer
11	IT Project Manager
63	Computer/Network Security
100	Software Developer
11	Network Administrator
5	IT Help Desk Job Listings

Over 336 of the best jobs in America
within a two-hour drive

*Listings newer than 15 days match on exact phrase; excludes staffing firms



The Bottom Line...



- Smart?
- Good at solving problems?
- Creative?
- Disciplined?
- Good communicator?
- Passionate about technology?
- Over-achiever?



**WHAT CAN I DO TO TAKE
ADVANTAGE OF THE
CURRENT OPPORTUNITY?**



You Can...

- Change major to IS / Double Major in IS
- Minor in IS
- Take elective courses in IS
- Join IS club
- Join online tech student communities
- Self Study ***** **Big Opportunity Today!**

For More Information

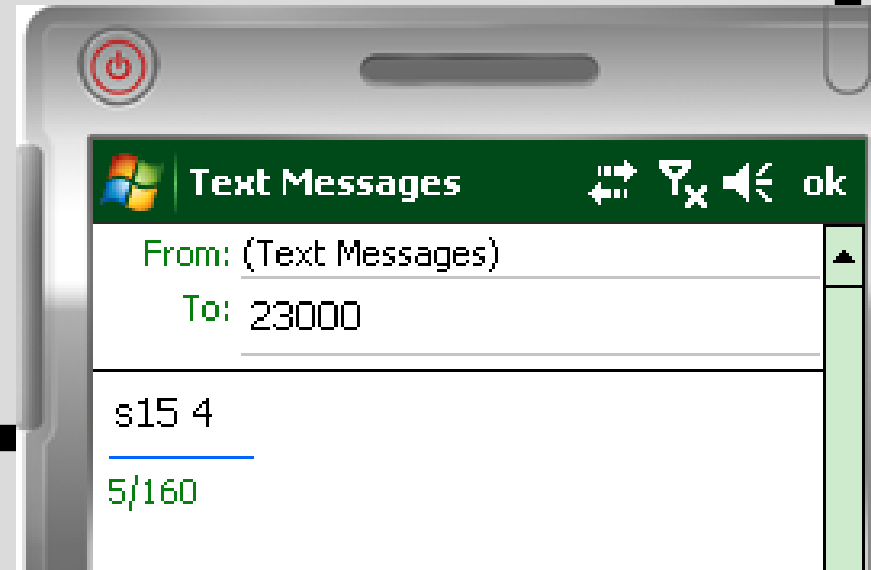
- http://blogs.msdn.com/MIS_Laboratory
- <http://www.facebook.com/microsoft>
- <http://www.microsoft.com/studentstobusiness/home/default.aspx>
- <https://careers.microsoft.com>

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What is your reaction to this presentation?

- 1 – “Zzzzzzzz”
- 2 – “No big deal”
- 3 – “Somewhat interesting”
- 4 – “Pretty compelling”
- 5 – Great/“WOW”



S15



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